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PATIENT REPORT

Patient Age/Sex: Unknown

Specimen Collected: 18-Dec-23 09:36

Autoimmune Enceph/Dementia Panel, Serum | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
Neuronal Antibody (Amphiphysin)	**Positive** * i1		[Negative]
Purkinje Cell/Neuronal Nuclear IgG Scrn	**ANNA Detected** * f1 i2		[None Detected]
NMDA Receptor Ab IgG CBA-IFA, Serum	**1:160** * f2 i3		[<1:10]
CASPR2 Ab IgG CBA-IFA Screen, Serum	**Detected** * t1 i4		[<1:10]
LGI1 Ab IgG CBA-IFA Screen,Serum	**Detected** * t2 i5		[<1:10]
CV2 Ab IgG CBA-IFA Screen,Serum	**Detected** * t3 i6		[<1:100]
AMPA Receptor Ab IgG CBA-IFA Scrn,Serum	**Detected** * t4 i7		[<1:10]
GABA-BR Ab IgG CBA-IFA Scrn,Ser	**Detected** * t5 i8		[<1:10]
SOX1 Antibody,IgG by Immunoblot, Serum	**High Positive** * i9		[Negative]
DPPX Ab IgG CBA-IFA Screen,Serum	**Detected** * t6 i10		[<1:10]
IgLON5 Ab IgG CBA-IFA Screen, Serum	**Detected** * t7 i11		[<1:10]
mGluR1 Ab IgG CBA-IFA Screen, Serum	**Detected** * t8 i12		[<1:10]
Glutamic Acid Decarboxylase Antibody	**10.0** H i13	IU/mL	[0.0-5.0]

Neuronal Nuclear Ab (ANNA) IFA Titer,IgG | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (ANNA) IFA Titer IgG	**1:80** * i14		[<1:10]

Neuronal Nuclear Ab IgG, Immunoblot, Ser | **Received: 18-Dec-23 09:40** | **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
Neuronal Nuclear Ab (Hu) IgG,IB, Serum	**Positive** * i15		[Negative]
Neuronal Nuclear Ab (Ri) IgG,IB, Serum	**Positive** * i16		[Negative]
Neuronal Nuclear Ab (Yo) IgG,IB, Serum	**Positive** * i17		[Negative]
Neuronal Nuclear Ab (TR/DNER) IgG,IB	**Positive** * i18		[Negative]

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

AMPA Rptr Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
AMPA Receptor Ab IgG CBA-IFA Titer,Ser	**1:160** * i19		[<1:10]

CASPR2 Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
CASPR2 Ab IgG CBA-IFA Titer, Serum	**1:160** * i20		[<1:10]

CV2 Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
CV2 Ab IgG CBA-IFA Titer,Serum	**1:1600** * i21		[<1:100]

DPPX Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
DPPX Ab IgG CBA-IFA Titer,Serum	**1:160** * i22		[<1:10]

GABA-B Rptr Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
GABA-BR Ab IgG CBA-IFA Titer,Ser	**1:80** * i23		[<1:10]

IgLON5 Ab IgG CBA-IFA Titer, Serum | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
IgLON5 Ab IgG CBA-IFA Titer, Serum	**1:160** * i24		[<1:10]

LGI1 Ab IgG Titer by CBA-IFA, Ser | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
LGI1 Ab IgG CBA-IFA Titer,Serum	**1:80** * i25		[<1:10]

mGluR1 Ab IgG CBA-IFA Titer, Serum | **Received: 18-Dec-23 09:40** **Report/Verified: 18-Dec-23 09:54**

Procedure	Result	Units	Reference Interval
mGluR1 Ab IgG CBA-IFA Titer, Serum	**1:160** * i26		[<1:10]

Interpretive Text

t1: 18-Dec-23 09:36 (CASPR2 Ab IgG CBA-IFA Screen, Serum)
CASPR2 Antibody, IgG is detected. Titer results to follow.
t2: 18-Dec-23 09:36 (LGI1 Ab IgG CBA-IFA Screen, Serum)
LGI1 Antibody, IgG is detected. Titer results to follow.
t3: 18-Dec-23 09:36 (CV2 Ab IgG CBA-IFA Screen, Serum)
CV2 Antibody, IgG is detected. Titer results to follow. Additional charges apply.
t4: 18-Dec-23 09:36 (AMPA Receptor Ab IgG CBA-IFA Scrn, Serum)
AMPAR Antibody, IgG is detected. Titer results to follow.
t5: 18-Dec-23 09:36 (GABA-BR Ab IgG CBA-IFA Scrn, Ser)
GABA-BR Antibody, IgG is detected. Titer results to follow.
t6: 18-Dec-23 09:36 (DPPX Ab IgG CBA-IFA Screen, Serum)
DPPX Antibody, IgG is detected. Titer results to follow.

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

Interpretive Text

t7: 18-Dec-23 09:36 (IgLON5 Ab IgG CBA-IFA Screen, Serum)
IgLON5 Antibody, IgG is detected. Titer results to follow.
t8: 18-Dec-23 09:36 (mGluR1 Ab IgG CBA-IFA Screen, Serum)
mGluR1 Antibody, IgG is detected. Titer results to follow.

Result Footnote

f1: Purkinje Cell/Neuronal Nuclear IgG Scrn

Antibodies detected, therefore IFA titer and Immunoblot testing to be performed.
f2: NMDA Receptor Ab IgG CBA-IFA, Serum

Antibodies to NMDA were detected; titer was performed at an additional charge.

The ExTINGUISH Trial (safety and efficacy of Inebilizumab in anti-NMDA receptor encephalitis, NCT04372615) is actively recruiting patients. To learn more, or to refer your patient, call 1-844-427-2465, email ExTINGUISH@hsc.utah.edu, or visit https://neuronext.org/projects/nn111-extinguish.

Test Information

i1: Neuronal Antibody (Amphiphysin)
INTERPRETIVE INFORMATION: Amphiphysin Antibody, IgG

Amphiphysin antibody is present in about 5 percent of patients with stiff-person syndrome and is found variably in other causes of paraneoplastic neurological syndrome (PNS). Amphiphysin antibody is mainly associated with small-cell lung cancer and breast tumors.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.
i2: Purkinje Cell/Neuronal Nuclear IgG Scrn
INTERPRETIVE INFORMATION: Purkinje Cell/Neuronal Nuclear IgG Scrn

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.
i3: NMDA Receptor Ab IgG CBA-IFA, Serum
INTERPRETIVE INFORMATION: NMDA Receptor Ab IgG CBA-IFA, Serum

NMDA receptor antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. In addition, positive results have been reported in patients with non-autoimmune phenotypes. A negative test result does not rule out a diagnosis of autoimmune limbic encephalitis. Results should be interpreted in correlation with the patient's clinical history and other

Test Information

i3: NMDA Receptor Ab IgG CBA-IFA, Serum

laboratory findings. Serum testing should be paired with CSF testing for improved diagnostic sensitivity.

This indirect fluorescent antibody assay utilizes full-length GluN1 transfected cell lines for the detection and semiquantification of NMDA receptor IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i4: CASPR2 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: CASPR2 Ab IgG CBA-IFA Screen, Serum

Contactin-associated protein-2 (CASPR2) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of CASPR2 IgG antibody is associated with a wide spectrum of clinical manifestations, including acquired neuromyotonia, limbic encephalitis, painful neuropathy, and Morvan syndrome. Tumors such as thymoma, small cell lung cancer, and other rarer tumors may occur. The full-spectrum of clinical disorders and tumors associated with the CASPR2 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes CASPR2 transfected cell lines for the detection and semiquantification of the CASPR2 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i5: LGI1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: LGI1 Ab IgG CBA-IFA Screen, Serum

Leucine-rich, glioma-inactivated 1 protein (LGI1) IgG antibody may occur as part of the voltage-gated potassium channel (VGKC) complex antibodies.

The presence of LGI1 IgG antibody is mainly associated with limbic encephalitis, hyponatremia, and myoclonic movements. LGI1 IgG antibody is rarely associated with tumors but may occur infrequently in Morvan syndrome, neuromyotonia, and idiopathic epilepsy. The full-spectrum of clinical disorders associated with the LGI1 IgG antibody continues to be defined. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

Test Information

i5: LGI1 Ab IgG CBA-IFA Screen, Serum

This indirect fluorescent antibody assay utilizes LGI1 transfected cell lines for the detection and semiquantification of the LGI1 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i6: CV2 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA Screen, Serum

CV2 antibodies aid in discriminating between chronic paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-CV2 is associated with small-cell lung cancer and thymoma. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes CV2 transfected cell lines for the detection and semiquantification of the CV2 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i7: AMPA Receptor Ab IgG CBA-IFA Scrn, Serum

INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG CBA-IFA Scrn, Serum

Alpha-amino-3-hydroxy-5-methyl-4-isoxazoleproprionic acid receptor (AMPAR) antibody is found in a subset of patients with autoimmune limbic encephalitis and may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. A negative test result does not rule out a diagnosis of autoimmune encephalitis. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes AMPAR transfected cell lines for the detection and semiquantification of AMPAR IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i8: GABA-BR Ab IgG CBA-IFA Scrn, Ser

INTERPRETIVE INFORMATION: GABA-BR Ab IgG CBA-IFA Scrn, Ser

Test Information

i8: GABA-BR Ab IgG CBA-IFA Scrn, Ser

Gamma-amino butyric acid receptor, type B (GABA-BR) antibody is found in a subset of patients with autoimmune epilepsy and other autoimmune neurologic phenotypes; it may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes GABA-BR transfected cell lines for the detection and semiquantification of GABA-BR IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i9: SOX1 Antibody, IgG by Immunoblot, Serum

INTERPRETIVE INFORMATION: SOX1 Antibody, IgG by Immunoblot, Serum

SOX1 antibody is detected in patients with Lambert-Eaton myasthenic syndrome (LEMS) and in patients with paraneoplastic cerebellar degeneration (PCD), paraneoplastic and nonparaneoplastic neuropathy. SOX1 antibody is associated with small cell lung cancer. A negative test result does not rule out a diagnosis of LEMS or other causes of paraneoplastic neurological syndrome.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i10: DPPX Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: DPPX Ab IgG CBA-IFA Screen, Serum

DPPX antibody is found in a subset of patients with autoimmune encephalitis, and is often associated with prodromal gastrointestinal symptoms and unintentional weight loss. It may occur with or without associated tumor. Decreasing antibody levels may be associated with therapeutic response. A negative test result does not rule out a diagnosis of autoimmune neurologic disease. Results should be interpreted in correlation with the patient's clinical history and other laboratory findings.

This indirect fluorescent antibody assay utilizes DPPX transfected cells for the detection and semiquantification of the DPPX IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

Test Information

i11: IgLON5 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: IgLON5 Ab IgG CBA-IFA Screen, Serum

IgLON Family Member 5 (IgLON5) antibody is found in a subset of patients with autoimmune encephalitis or other autoimmune neurologic/neurodegenerative disorders and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of an autoimmune neurologic disorder. Interpretation of any antineural antibody test requires clinical correlation.

This indirect fluorescent antibody assay utilizes IgLON5 transfected cell lines for detection and semi-quantification of IgLON5 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i12: mGluR1 Ab IgG CBA-IFA Screen, Serum

INTERPRETIVE INFORMATION: mGluR1 Ab IgG CBA-IFA Screen, Serum

Metabotropic glutamate receptor 1 (mGluR1) antibody is found in a subset of patients with autoimmune cerebellar ataxia or autoimmune encephalitis and may occur with or without associated tumor. A negative test result does not rule out a diagnosis of autoimmune cerebellar ataxia or limbic encephalitis. Interpretation of any antineural antibody test requires clinical correlation.

This indirect fluorescent antibody assay utilizes mGluR1 transfected cell lines for detection and semi-quantification of mGluR1 IgG antibody.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i13: Glutamic Acid Decarboxylase Antibody

INTERPRETIVE INFORMATION: Glutamic Acid Decarboxylase Antibody

A value greater than 5.0 IU/mL is considered positive for Glutamic Acid Decarboxylase Antibody (GAD Ab). This assay is intended for the semi-quantitative determination of the GAD Ab in human serum. Results should be interpreted within the context of clinical symptoms.

i14: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (ANNA) IFA Titer IgG

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug

Test Information

i14: Neuronal Nuclear Ab (ANNA) IFA Titer IgG
Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i15: Neuronal Nuclear Ab (Hu) IgG, IB, Serum
INTERPRETIVE INFORMATION: Neuronal Nuclear Ab IgG, Immunoblot, Ser
This test detects IgG antineuronal antibodies to Hu, Ri, Yo and Tr (DNER) antigens.

Antineuronal antibodies serve as markers that aid in discriminating between a true paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-Hu (antineuronal nuclear antibody, type I) is associated with small-cell lung cancer. Anti-Ri (antineuronal nuclear antibody, type II) is associated with neuroblastoma in children and with fallopian tube and breast cancer in adults. Anti-Yo (anti-Purkinje cell cytoplasmic antibody) is associated with ovarian and breast cancer. Anti-Tr(DNER) is associated with Hodgkin's lymphoma.

The presence of one or more of these antineuronal antibodies supports a clinical diagnosis of PND and should lead to a focused search for the underlying neoplasm.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i16: Neuronal Nuclear Ab (Ri) IgG, IB, Serum
INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Ri) IgG, IB, Serum
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i17: Neuronal Nuclear Ab (Yo) IgG, IB, Serum
INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (Yo) IgG, IB, Serum
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i18: Neuronal Nuclear Ab (TR/DNER) IgG, IB
INTERPRETIVE INFORMATION: Neuronal Nuclear Ab (TR/DNER) IgG, IB
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Test Information

i19: AMPA Receptor Ab IgG CBA-IFA Titer, Ser
INTERPRETIVE INFORMATION: AMPA Receptor Ab IgG CBA-IFA Titer, Ser
This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i20: CASPR2 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: CASPR2 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i21: CV2 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: CV2 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i22: DPPX Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: DPPX Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i23: GABA-BR Ab IgG CBA-IFA Titer, Ser
INTERPRETIVE INFORMATION: GABA-BR Ab IgG CBA-IFA Titer, Ser

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i24: IgLON5 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: IgLON5 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

i25: LGI1 Ab IgG CBA-IFA Titer, Serum
INTERPRETIVE INFORMATION: LGI1 Ab IgG CBA-IFA Titer, Serum

Test Information

i25: LGI1 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

i26: mGluR1 Ab IgG CBA-IFA Titer, Serum

INTERPRETIVE INFORMATION: mGluR1 Ab IgG CBA-IFA Titer, Serum

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.